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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,635	08/30/2001	Steven Harold Cary	AUS9-2001-0646-US1	9077
40412	7590	09/15/2005	EXAMINER	
IBM CORPORATION- AUSTIN (JVL) C/O VAN LEEUWEN & VAN LEEUWEN PO BOX 90609 AUSTIN, TX 78709-0609			GRAYSAY, TAMARA L	
			ART UNIT	PAPER NUMBER
			3623	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,635

Applicant(s)

CARY ET AL.

Examiner

Tamara L. Graysay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>(1 page)</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because
 - a. They fail to comply with 37 CFR 1.84(l) because every line (Fig.1) is not sufficiently dense and dark, and uniformly thick and well defined. In particular, the dashed lines around the Sampled Reference Source File and Customer Source File are not well defined and uniform.
 - b. They fail to comply with 37 CFR 1.84(m) because the shading (Figs.1, 6) does not aid in understanding the invention and reduces legibility.
 - c. They fail to comply with 37 CFR 1.84(m) because solid black shading (Figs.1, 6) is not permitted.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The disclosure is objected to because of the following informalities:
 - a. At page 14, lines 13-15, the description of the ratio appears to be inaccurate and/or inconsistent with the description at page 14 lines 20-23. In particular, the example places the number of matches in the numerator whereas the earlier description places the number of households in the sample file in the numerator. Perhaps the sentence at page 14, lines 13-15 should read, "The Match Proportion is the number of households in the sample file that match divided by the total number of households in the sample file."
 - b. The use of acronyms is acceptable, however, each should be spelled out at least at its first occurrence. For example, PCI, LAN, ISA, DMA, BIOS, ISP and CD ROM are not spelled out.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-7 and 15-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to nonstatutory subject matter.

Claims 1-7

Claims 1-7 are drawn to a method of analyzing a data source comprising the steps of comparing data to a file, determining whether the data is balanced, and adjusting the data, wherein the data is more balanced. For computer related inventions, the claims must include a practical application in the technological arts.

A practical application is one that is useful, concrete, and tangible. In the claims, the result is a “more balanced” data source derived from adjusting the data source as compared to a reference file. The claims do not include a result. They merely recite a process that compiles data into a “more balanced” grouping. Although the specification described examples of what “more balanced” means, one who performs the method does not transform any of the data and does nothing more than compile or group the data into an imaginary or abstract arrangement. One who performs the method cannot duplicate such an abstract arrangement, thus it lacks concreteness and tangibility. While an arrangement of information or data can be useful and have a real world application of determining bias, the claims stop short of including a concrete and tangible result.

To be within the technological arts, the claimed invention must involve, use, or advance technology. The claims do not involve technology because each of the steps of comparing, determining, and adjusting can be performed manually using pencil and paper or the human mind. Applicant’s claims are not limited to the use of computer hardware or a combination of hardware and software, but rather an abstract idea of comparing data to a reference and adjusting the data accordingly. The claims do not require any technology or manipulate any technology when the method is performed.

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Therefore, the claims are directed to nonstatutory subject matter.

Claims 15-20

Claim 15 is drawn to a computer program product stored in a computer operable media. However, claims 16-20 recite a computer program product alone. Therefore, the claims are not clear as to whether the combination of the computer program product and the computer operable media are encompassed by the claims, or whether the computer program alone is encompassed by the claims. As a result, one reasonable interpretation of the claims is that they are drawn to a computer program *per se*. A computer program *per se* does not define any structural and functional interrelationships that permit the computer program's functionality to be realized. A claim drawn to nonfunctional descriptive material, whether or not it is stored on a computer-readable medium, is nonstatutory.

Further, the term computer program product is software. The term computer operable media is not the same as computer-readable media. Computer-readable media is clearly within the technological arts because it is hardware allows the functionality of the software to be performed when associated with a computer. In contrast, software stored on a computer operable media may be tangible, but not necessarily within the technological arts, as required for a computer-related invention, because the software may be stored on paper or the software may be merely a signal, which are both broadly computer operable media but they are not in the technological arts.

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Therefore, the claims as currently written are directed to nonstatutory subject matter. If applicant were to clearly claim hardware or hardware in combination with software, then the claims would include statutory subject matter.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 12 recites a second bias value, however, there is no first bias value recited in antecedent. Also, “the first bias value” lacks antecedent basis in the claim.
- b. Claim 15 recites a combination of a computer program product stored on a computer operable media; however, the dependent claims 16-20 recite only the subcombination of the computer program product. The claims must be clarified as to whether applicant intends to claim the subcombination of the computer program product subcombination alone, or the combination of the computer program product with the computer operable media.
- c. Claim 19 recites a second bias value, however, there is no first bias value recited in antecedent. Also, “the first bias value” lacks antecedent basis in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Rabianski (article, The accuracy of economic/demographic projections made by private vendors of secondary data).

a. Regarding claim 1, Rabianski teaches a method of analyzing a data source comprising: comparing the data source (Sales and Marketing Management (SMM) data current-period estimates, [08]) to a reference file (Atlanta Regional Commission (ARC) estimates, [08]); determining whether the data source is balanced in response to the comparing (population data are compared to population data and household data are compared to household data, [08]); adjusting the data source based on the determining, for a more balanced data source (census year adjustment, for example, [09]). See also; footnote 6 regarding a reference file comprised of past reports for geographic areas for determining accuracy of vendor forecasts (data source) of population, households, and income (records).

b. Regarding claim 2, Rabianski teaches matching a record (e.g., population and household) from the data source (SSM data) to reference file records (ARC data); generating a comparison master file based on matching (consensus forecast). See [06], and footnotes 6 and 7.

c. Regarding claim 3, Rabianski teaches retrieving a rule corresponding to an element in the data source (analysts establish a procedure to judge accuracy of the data, [20]); determining whether the element (e.g., population, households, income) in the data source approximates a corresponding value in the reference file based on the retrieved rule (e.g., county, tract, etc., [20]); and assigning a match to the element in response to the determination (correlation analysis, [20]).

d. Regarding claim 4, Rabianski teaches matching a record (e.g., population) from the data source (e.g., SMM data) to the reference file (e.g., ACM data); and calculating a first bias valued based upon the matching (correlation analysis, [20]).

e. Regarding claim 5, matching and calculating for a second data source (note that the Rabianski reference mentions analyzing more than one data source at [06]). The step of comparing the bias values of each source (the data sources can be investigated for accuracy, *compared*, and the used to form a consensus forecast).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabianski (article, The accuracy of economic/demographic projections made by private vendors of secondary data).

a. Regarding claims 6 and 7, Rabianski teaches identifying a first data source sample size (current-period population, [10-11]); comparing the first data source sample corresponding to the first data source sample size to the reference file (ARC data, [09-10]); determining a match percentage based on the comparison (statistical results, [10-18]).

The examiner takes Official notice that cost benefit analysis is common in businesses practice, and such analysis includes, among other things, evaluation of vendor services, generally. Further, the examiner takes Official notice that sample size is a determination that is within the level of ordinary skill of a journeyman statistician. Moreover, it is within the level of ordinary skill and knowledge of a journeyman statistician that data sets of similar size are preferred when analyzing a particular element of the data set. Rabianski teaches calculating a second data source sample size by dividing the first data source sample size by the match percentage (in the example on page 2, samples sized by county in the Atlanta Metropolitan Statistical Area (SMA) were used for comparison of data among the sources, i.e., it is inherent in the data sources that the percentage match would be used to determine a comparable sample size because each county has the same size in each of the sources). Although Rabianski does not disclose a

method for analyzing a second data source, Rabianski does mention that other data sources can be used (state planning agency or other private vendor).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Rabianski to include the steps of calculating a second data source sample size that is comparable to the first data source sample size, identifying a second data source, matching the second data source record to the reference file, and calculating the second matching percentage based on the matching, in order to statistically compare similar sized data sets and the same elements among the various vendors or data sources to make determinations of the accuracy of the vendor data thereby aiding in business decisions related to the cost benefit analysis of vendor data sources.

8. Claims 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabianski (article, The accuracy of economic/demographic projections made by private vendors of secondary data) in view of Little (article, Auditing for database integrity).

Regarding claims 8-14, Little teaches a system including a processor, memory, and storage device to automate a statistical analysis of data stored in a computer database.

Generally, the Little system is used for auditing the integrity of data that is stored on a computer database. The level of skill in the art of automating manual statistical activities is such that it would have been obvious to one of ordinary skill in the art to automate Rabianski using a system including a processor, memory, and storage device, such as taught by Little, in order to perform the Rabianski analysis of the vendor data (as discussed with regard to claims 1-7 above) more quickly and efficiently.

Regarding claims 15-20, Little includes a computer program product (software) stored on a computer operable media (memory) for managing a data source (database). A computer program product and computer operable media are common in the automation art to ensure accuracy and to perform mathematical functions more quickly and efficiently.

It would have been obvious to one of ordinary skill in the art to modify Rabianski to including a computer program product and computer operable media, such as taught by Little, in order to perform the Rabianski analysis of the vendor data (as discussed with regard to claims 1-7 above) more accurately, quickly, and efficiently.

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamara L. Graysay
Examiner
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